

## Claims

1. Method for connecting a device to a wireless network ;  
5 characterized, at the level of a bridge device adapted to interface with the wireless network, by the steps of:

- detecting a connection between the device and the bridge device ;
- determining an address for the device and for the bridge device ;
- have the bridge device separately register, with the respective  
10 addresses, the device and itself as wireless devices on the wireless network.

2. Method according to claim 1, wherein the addresses are MAC addresses.

15 3. Method according to claim 1, further comprising the step of having the bridge device monitor traffic on the wireless network for the device.

4. Method according to claim 1, further comprising the step of programming packet filters for packets having as destination address the  
20 address of the device, and upon detection of such a packet, acknowledging receipt of said packet in place of the device.

5. Method according to claim 3, further comprising at least one of the following steps:

- 25 - forwarding all multicast packets detected on the wireless network from the bridge device to the connected device;
- forwarding all broadcast packets detected on the wireless network from the bridge device to the connected device;
- forwarding unicast packets on the wireless network having as  
30 destination address the address of the connected device to that device.

6. Method according to claim 4, further comprising at least one of the following steps:

- 35 - forwarding all multicast packets detected on the wireless network from the bridge device to the connected device;
- forwarding all broadcast packets detected on the wireless network from the bridge device to the connected device;

- forwarding unicast packets on the wireless network having as destination address the address of the connected device to that device.

5           7. Method according to claim 1, where the connection between the device and the bridge device is an Ethernet connection, and wherein the step of detecting the connection comprises monitoring packets on the Ethernet connection for detecting a previously unknown source address of an Ethernet device.

10           8. Method according to claim 3, where the connection between the device and the bridge device is an Ethernet connection, and wherein the step of detecting the connection comprises monitoring packets on the Ethernet connection for detecting a previously unknown source address of an Ethernet device

15           9. Method according to claim 5, where the connection between the device and the bridge device is an Ethernet connection, and wherein the step of detecting the connection comprises monitoring packets on the Ethernet connection for detecting a previously unknown source address of an Ethernet device

20           10. Method according to claim 1, wherein the wireless network is of the IEEE 802.11 type, further comprising the step of maintaining a single management information base for both the bridge device and the connected device.

25           11. Method according to claim 3, wherein the wireless network is of the IEEE 802.11 type, further comprising the step of maintaining a single management information base for both the bridge device and the connected device.

30           12. Method according to claim 4, wherein the wireless network is of the IEEE 802.11 type, further comprising the step of maintaining a single management information base for both the bridge device and the connected device.

13. Method according to claim 5, wherein the wireless network is of the IEEE 802.11 type, further comprising the step of maintaining a single management information base for both the bridge device and the connected device.

5

14. Bridge device adapted for communication on a wireless network and for connection of a first device not having wireless communication capability, said bridge device comprising:

10       - means for determining an address of the first device and of the bridge device;

          - means for carrying out two separate device registrations on the wireless network, one for the bridge device, and one for the first device, using respective addresses.

15